

LIKE IT OR LUMP IT

Presurgical Neuropsychological
Evaluations of Chronic Pain Patients:

A BAD CASE EXAMPLE

A COMMON (BUT UNETHICAL) MODEL

- Interview the pt (& maybe gave some tests)
- Pt complains of severe pain
- Pt says she's depressed & nonfunctional because of pain
- Nothing else matters
- If the pt has opioids &/or surgery that reduces the pain...
- This will alleviate the depression & non-functionality commensurately
- Pt is rubber-stamped for surgery/opioids

**THERE IS ABANDONMENT
OF EVIDENCE-BASED
HEALTHCARE**

OVERVIEW

- Basic understanding of what pain is
- Psychosocial factors affecting pain
- Contextual risk factors for bad outcomes
- Diagnostic & assessment issues in pain evaluations
- What is involved in a neuropsychological assessment
- Risk factors for poor outcome from surgery
- Contraindications for surgery

WHAT IS PAIN?

- An unpleasant sensory or emotional experience with actual or potential tissue damage
- A subjective experience influenced by both psychological and contextual factors
- Not dependent on tissue damage or nociceptive activation
- Acute pain = tissue damage & has a purpose
- Chronic pain = no tissue damage & has no purpose

UNDERSTANDING THE PAIN EXPERIENCE

- Physical factors alone are insufficient to explain outcomes
- Biological, psychological, & social factors
- Poor correlation between identifiable spinal abnormality & pain sx
- 3 yrs after surgery there is a better correlation between pain and depression
- 61% of 1st-time neurology referrals have at least 1 unexplained sx
- 34% met dx criteria for somatoform disorder

PSYCHOSOCIAL FACTORS IN PAIN

CHILDHOOD ADVERSITY

SOMATIZATION

PERSONALITY DISORDERS

MOOD AND ANXIETY DISORDERS

**FEAR-AVOIDANCE MODEL OF PAIN-
RELATED DISABILITY**

CHILDHOOD ADVERSITY

- Is a good predictor of future mental health problems and unexplained medical sx
- Childhood emotional abuse accounts for 50% of the variance in unexplained physical sx
- Adult chronic pain is associated with hx of sexual abuse
- Childhood adversity is associated with poor outcomes in tx of pain (85% of the time)

PHYSIOLOGICAL CHANGES WITH CHILDHOOD ADVERSITY

- Disruption of the hypothalamic-pituitary-adrenal (HPA) axis, causing risk for pain syndromes
- May cause actual changes in DNA, increasing psychological and physical reactivity later in life

SOMATIZATION

- Using physical sx to communicate about an emotional state
- Psychological problems are expressed in physical sx
- Physical sx increase during times of emotional distress
- Physical sx may be easier to accept as a cause of unhappiness than admitting to psychological reasons
- In these people, physical sx don't emerge in response to accidents or injuries, but rather when there is a "need" for sx (e.g., \$, attention, avoidance of dealing with psych issues, etc.)

PERSONALITY DISORDERS

- A longstanding, maladaptive pattern of interaction present since adolescence or early adulthood
- Not a result of an accident or injury
- Very poor tx prognosis
- In a chronic pain population ranges from 31% to 60%

MOOD AND ANXIETY DISORDERS

- Prevalence of Major Depressive Disorder (MDD) in chronic pain is over 50%
- Reciprocal relationship
- Comorbidity complicates tx for each condition
- Anxious expectations significantly increase perceived pain
- Anxiety slows recovery after surgery and creates more complications
- Higher levels of pre-surgical anxiety and depression predict poorer functional outcome from spine surgery 1 yr later

FEAR-AVOIDANCE MODEL OF PAIN-RELATED DISABILITY

• BAD MODEL

- Injury
- Pain experience
- Catastrophizing
- Fear
- Avoidance
- Disuse/deconditioning/depression
- Increased pain experience
- RINSE AND REPEAT

• GOOD MODEL

- Injury
- Pain experience
- Rational thinking
- Low fear
- Confrontation
- Recovery

CONTEXTUAL RISK FACTORS

EDUCATION

OCCUPATION & WORK-RELATED FACTORS

FINANCIAL INCENTIVES

DELAYS IN TREATMENT

SATISFACTION WITH CARE

EDUCATION

- Lower education predicts:
 - Higher work-related disability
 - Longer pain duration following surgery
 - Higher rate of pain recurrence
 - More misconceptions about back pain => maladaptive coping strategies (e.g., catastrophization)

OCCUPATION AND WORK-RELATED FACTORS

- Factors that predict back pain-related work absences and disability:
 - Physical work-load
 - Job satisfaction/Relationship with employer
 - Unskilled workers are 2 to 3x more likely to retire due to disability than professionals
 - Lower pay is associated with longer back-pain chronicity

FINANCIAL INCENTIVE EFFECTS

- More complaints of pain, depression, and disability
- Worse surgical outcomes, even with clearly defined spinal pathology
- In Canada, change to “no fault” compensation system decreased incidence of low back pain and whiplash injuries, & improved prognosis
- Sx increase as the disability determination date nears, & decrease steadily thereafter

DELAYS IN TREATMENT

- Second opinions
- Presence of atty representation
- Contested claims
- Strong relationship between passage of time and persistent disability

DIAGNOSTIC AND ASSESSMENT ISSUES

SOMATIC SYMPTOM DISORDER

- Excessive preoccupation with illness
- High level of anxiety about health
- Excessive care-seeking or need for illness validation
- Present at least 6 months

MALINGERING

- Intentional production of false or grossly exaggerated physical, cognitive, or psychological sx
- Motivated by external incentives
- 40% of all litigants fail Validity tests
- Cutoffs for tests are set at levels beyond which few or no non-malingering pts score

THE NEUROPSYCHOLOGICAL ASSESSMENT

- Is an essential component in the medical diagnostic process of spine surgery candidates
- Foregoing this evaluation increases costs, failed surgery, pain, & restrictions
- Review all medical records
- Clinical interview
- Administer standardized tests for several hours
- Assess cognition & emotional functioning, validity of sx, and aspects of behavioral pain management

PREDICTORS OF POOR OUTCOME FROM SPINAL SURGERY

- Financial incentive
- History of abuse or abandonment
- Job dissatisfaction
- Social support problems
- Substance abuse
- Pre-existing psychopathology
- Depression/anxiety
- Pain catastrophizing
- Poor behavioral pain mgmt
- Noncompliance/deception

CONTRAINDICATIONS FOR SURGERY

- Active psychosis
- Active Major Depression
- Suicidal ideation
- Lack of social support
- Cognitive deficits
- Disincentive to recover related to compensation or litigation

TAKEAWAY POINTS

- Neuropsych assessment is a medically necessary part of the pre-spinal surgery/scs process
- This is NOT a rubber stamp process – is instead evidence-based
- Our first priority is to DO NO HARM
- There are many reasons to exclude pts from proceeding with surgery
- Patients must be doing their parts as reasonably stable, active participants in their pain mgmt.
- Successful surgical outcomes are measured by improved functionality, decreased pain perception, AND decreased healthcare use

CASE STUDIES